

IN THE CLAIMS

1 – 11. (Canceled)

12. (Original) A process for producing a surface layer comprised of a plurality of layers, of which one layer is a transition layer to a substrate element, the process comprising the acts of:

applying a ceramic layer to a metallic substrate element;

causing a reaction between the metal of the substrate element and the ceramic layer by introducing energy; and

producing, during said reaction, a transition layer containing intermetallic phases.

13. (Original) The process according to Claim 12, wherein the ceramic layer is applied by one of: a thermal spraying process, a slip technique, and by a painting technique.

14. (Original) The process according to Claim 12, wherein energy is introduced via at least one of an infrared heating source, a laser, and an induction heat source.

15. (Original) The process according to Claim 13, wherein energy is introduced via at least one of an infrared heating source, a laser, and an induction heat source.

16. (New) A process for producing a surface layer comprised of a plurality of layers, of which one layer is a transition layer to a substrate element, the process comprising the acts of:

applying a ceramic layer to a metallic substrate element by a thermal spraying process;

causing a reaction between the metal of the substrate element and the ceramic layer by introducing energy from the thermal spraying process; and

producing, during said reaction, a transition layer containing intermetallic phases.